1. This Office action is in response to the application filed July 13, 2006. Claims 1-20 are pending.

2. The drawings are objected to because some of the figures lack necessary labels. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

EXAMINER'S AMENDMENT

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Taut Swanson on August 3, 2009.

The application has been amended as follows:

Please cancel claim 3.

1. (currently amended) An electronic control system for a submarine actuator, the actuator comprising a container body from which a drive shaft projects that is suitable for inserting in a seat of the submarine device, the system comprises an electronic control board for at least one electric motor, arranged inside the container body suitable for moving the drive shaft, the electronic control board being suitable for receiving an electrical control signal for the actuator, generated by a remote control station, characterized in that the actuator comprises two electric motors associated with the drive shaft and the electronic control board is suitable for controlling each motor independently from the other, wherein the electronic control board comprises a pilot circuit, for the at least one motor, a power supply circuit and a programmable logic unit, wherein the electronic control board comprises a first retroaction circuit of the current absorbed by the motor between the programmable logic unit and the pilot circuit.

2. (currently amended) The system of claim 1, comprising a position transducer for detecting the position of such a drive shaft electrically connected with the programmable logic unit.

4. (currently amended) The system of claim 1, wherein the electronic control board comprises a second pilot circuit of the position signal of the drive shaft between a position transducer and the programmable logic unit.

5. (currently amended) The system of claim 4, wherein the electronic control board is suitable for processing the signals coming from the position transducer from a control input and from the pilot circuit, in order to generate an activation signal of the at least one electric motor.

6. (currently amended) The system of claim 5, wherein the processing comprises calculating a speed value and direction for the rotation of the motor, starting from a position value of the drive shaft to be reached and from the current position of the shaft detected by the position transducer, and sending a corresponding signal to the pilot circuit of the motor.

7. (currently amended) The system of claim 1, wherein the electronic control board comprises a filtering block of the control signal that compares the value of the signal received with an average of a predetermined number of previous control signals.

8. (currently amended) The system of claim 2, wherein the electronic control board carries out a comparison between the signal received by the pressure transducer and a predetermined number of previous memorized signals corresponding to the limit positions of the

movement of the drive shaft, and, from subsequent processing through a linearization function, determines a decoded position signal.

9. (currently amended) The system of claim 1, wherein the electronic control board is suitable for selecting which electric motor controls the shaft and in the case of an anomaly it is able to switch from one motor to the other.

10. (currently amended) A system, comprising:

a submersible actuator, comprising:

a first electric motor;

a second electric motor; and

a control circuit configured to control the first and second electric motors independently from one another to actuate a submersible flow control mechanism, wherein the control circuit is responsive to a control signal from a remote control station, wherein the control circuit comprises a filtering block configured to compare a value of the control signal with an average of a predetermined number of previous control signals.

17. (currently amended) A method, comprising:

controlling a first electric motor of a submersible actuator to actuate a submersible flow control mechanism;

independently controlling a second electric motor of the submersible actuator to actuate the submersible flow control mechanism; and

controlling a speed value and a direction for rotation of the first or second electric motor based on a target shaft position and a current shaft position sensed by a position sensor.

4. The following changes to the drawings have been approved by the examiner and agreed upon by applicant: Boxes in the drawings should be labeled. In order to avoid abandonment of the application, applicant must make these above agreed upon drawing changes.

5. Claims 1-2 and 4-20 are allowed.

6. The following is an examiner's statement of reasons for allowance: The amendment incorporates limitations from original claims 4, 6 and 7 that were considered to be allowable subject matter. The prior art of record fails to teach, suggest or make obvious the various control aspects of the control board and the corresponding method of using the control board.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT K. WONG whose telephone number is (571)272-3057. The examiner can normally be reached on M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian A. Zimmerman can be reached on 571-272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Albert K Wong/
Primary Examiner, Art Unit 2612

August 3, 2009